



POLARIS

POLARIS: The Pursuing Opportunities for Long-term Arctic Resilience for Infrastructure and Society

Gardening practices in Alaska build on traditional food system Foundations

SUMMARY

The majority of rural Alaskans continue to rely on subsistence foods, harvesting hundreds of pounds annually. Subsistence food diets are supplemented with store-bought foods and locally grown fruits, vegetables, and meats. Today in Alaska, gardened foods add a readily accessible source of fresh produce and micronutrients to a portfolio of foods obtained through subsistence and markets. In fact, in a review of Indigenous food sovereignty initiatives in the Western United States, growing and raising food, and specifically gardening, was the most common strategy for self-sufficiency and intangible wellbeing. Gardens remain important and are being revitalized in Alaskan food systems.

In this study we ask: How are food cultivation practices and systems being grown around and from existing subsistence food cultures?

This study is informed by both interviews and surveys with household gardeners. Thirty interviews were conducted with home gardeners in Dillingham and thirteen interviews were conducted with individuals involved in community gardening efforts in rural communities throughout the state: four interview respondents from the Southeast region, five from the Southcentral region, and four from the Interior region from 2021-2024. The household survey was part of a survey conducted by the Alaska Department of Fish and Game Division of Subsistence, Bristol Bay Native Association, and university researchers. Survey data was collected in Dillingham, Alaska from February-April 2021. The 155 households that participated in the survey were randomly selected from a list of permanent residents in the town of Dillingham (667 households total). Sixty-five percent of surveyed households have an Alaska Native household head.

HIGHLIGHTS

In Dillingham in 2021, 42% of households kept a home garden. On average, respondents have kept a garden for

almost 12 years, with a median of 10-years, ranging from just starting gardening (one year of experience) to seasoned gardeners (50 years of experience). Of the people who do not garden, over half (51.81%) stated an interest in starting a garden. While Alaska Native households garden at lesser rates (40.62% of households that garden have Alaska Native household heads), our interviews would suggest that this is more due to barriers related to time, resources/cost, or experience, rather than interest. In fact, of the households that indicated they are interested in gardening, over half (66.67%) are Alaska Native households.

GARDENERS HARVEST HIGH VOLUMES AND DIVERSITY OF SUBSISTENCE FOODS

Gardening households are deeply entrenched in subsistence food harvesting, in diversity of food types and volume of foods harvested. Gardening households in Dillingham harvest more total pounds per capita of wild foods (244.53 lbs.) than non-gardening households (175.17 lbs.) (and more for each wild food type except marine mammals and invertebrates). They also harvest more than the average household (204.37 lbs.). Gardeners harvest a greater diversity of wild foods (e.g., salmon, berries, land mammals, etc.) (3.47 wild foods harvested by gardeners vs. 2.75 wild foods harvested by non-gardeners) and a greater diversity of species/variety within categories (e.g., salmonberries, cranberries, blueberries, etc.) (12.91 species harvested by gardeners vs. 8.16 species harvested by non-gardeners). This data strongly emphasizes the ability for households to do both food cultivation and wild food harvesting as complementary systems which diversify diets and networks.

FOOD AND KNOWLEDGE SHARING WITH FAMILY AND COMMUNITY

Gardeners in our study are not only prolific food producers and harvesters, but they are also prolific food sharers in their community. Gardeners engage in more giving of wild foods (in occurrence and diversity of foods) than households who

do not garden. For example, 83% of gardeners gave salmon to other households (compared to 65% of non-gardeners) and 58% gave large land mammals to others (compared to 46% of non-gardeners). Gardeners and non-gardeners generally received wild foods almost evenly. In interviews food sharing was talked about in 32 out of 43 interviews and mentioned 87 times across all interviews. Apart from food, people also share equipment like rototillers and help each other prepare the soil each year. Sharing starts and seeds is also common and important as not everyone is equipped to start seeds inside or in a greenhouse.

Gardening knowledge networks are similar to familial and community networks that support wild food related knowledge and skill. Gardening knowledge and traditions pass on through generations and connect people to their ancestors. "Every time I crawl in that garden, I think of my grandma" (Interview #31, 2/16/2022). Respondents described networks of gardens among their great-grandparents' or grandparents' generations which declined in the 1960s and were not maintained by their parents.

GARDENERS HAVE AN AFFINITY FOR PLANTS

Gardening households exhibit a significant affinity and skill for both wild and cultivated plants which shaped their holistic approach to land and food. Ninety-five percent of gardeners harvest wild berries and vegetation compared to the 66% of households that do not garden and 70.31% of gardeners give wild berries and plants to others compared to 46.59% of households that do not garden. Gardening households harvested an average of 19 lbs. of wild plants and berries annually, illustrating a great deal of effort as wild berries and plants are small and light compared to salmon or large land mammals. A few people maintain wild, native plants in their garden such as lovage (*Levisticum officinale*), beach greens (*Honckenya peploides*), or sorrel (*Rumex acetosa*) because their family likes it, and it enables easy access, especially for elders.

CONCLUSIONS

Our study shows that home gardening is thriving and growing outside the lines of western food systems in Alaska. Where home and community gardening as nutrition interventions have fallen short, gardeners have much to offer in terms of a community directed, implemented, and sustained approaches to wellbeing, shifting the bar of "success" away from yield-based outcomes to family and community outcomes inherent to food sovereignty. Moving forward, it is essential to recognize the role that home and community gardeners play in food security and sovereignty in functions often foreign to the infrastructure and design of commercial agriculture and food systems. Building gardening programs around the expertise of gardeners

in the community will provide platforms for experienced gardeners to share knowledge, values, and practices with other households in the community. Gardening is intergenerational knowledge that some families do not have as part of their food traditions but would like to learn. Community garden programs can cultivate a gardening culture in a community. Home gardeners can be a catalyst for revitalization. Food economies based on feeding the community and trading and sharing must be recognized and given the same support in funding, extension, and capacity building as monetary based economic models. Many gardening or farming initiatives led by Indigenous governments or organizations prioritize food sovereignty and feeding the community, while also generating capital and creating economic prosperity.

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MORE INFORMATION

This summary is based on a peer-reviewed journal article by: Mucioki, Megan, Sean Kelly, Davin Holen, Bronwen Powell, Tikaan Galbreath, Sarah Paterno, Robbi Mixon, and Guangqing Chi (2024). "Gardening practices in Alaska build on traditional food system foundations." *Agriculture and Human Values*: 1-17. Retrieved from <https://link.springer.com/content/pdf/10.1007/s10460-024-10652-6.pdf>. For more details, please see the complete publication.

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